

ABSTRACT OF THE DISCLOSURE

In one embodiment, the branch prediction mechanism includes a first storage including a first plurality of locations for storing a first set of partial prediction information. The 5 branch prediction mechanism also includes a second storage including a second plurality of locations for storing a second set of partial prediction information. Further, the branch prediction mechanism includes a control unit that performs a first hash function on input branch information to generate a first index for accessing a selected location within the first storage. The control unit also performs a second hash function on the input branch 10 information to generate a second index for accessing a selected location within the second storage. Lastly, the control unit further provides a prediction value based on corresponding partial prediction information in the selected locations of the first and the second storages.

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